

What Is Claimed Is:

1. A display method for a navigation system, comprising the following steps of:

5 examining a position of a destination and monitoring a current position of a user during a travel to the destination;

retrieving information on time zones and observation of daylight saving time at the current user position and the destination;

10 calculating an estimated time of arrival (ETA) at the destination based on a local time and daylight saving time of the destination using the retrieved information; and

15 informing the user of the ETA at the destination and a current time.

2. A display method for a navigation system as defined in Claim 1, wherein said current time informed by the navigation system is produced based on a local time and daylight saving time in a time zone at the current user position or on a local time and daylight saving time in a time zone of a home state of the user.

25 3. A display method for a navigation system as defined in Claim 1, wherein, when the destination is a POI (point of interest) selected from a POI database of the navigation system, said step of retrieving the information includes a step of retrieving business hour information of the destination POI.

30 4. A display method for a navigation system as defined in Claim 1, wherein, when the destination is a POI (point of interest), said step of retrieving the information includes a step of retrieving business hour information of the destination POI, and said step of informing the ETA includes a step of displaying the business hour of the destination.

35 5. A display method for a navigation system as defined in Claim 4, said step of retrieving business hour information

of the destination POI includes a step of retrieving business hour information of other POIs in a neighborhood of the destination, and said step of informing the business hour of the destination includes a step of displaying the business hours of other POIs.

6. A display method for a navigation system as defined in Claim 1, further comprising:

specifying a destination POI by selecting a POI (point of interest) from a POI database of the navigation system;

retrieving business hour information of the destination POI; and

comparing the ETA at the destination POI and the business hour information and informing an estimated open/close state of the destination POI at a time of arrival.

7. A display method for a navigation system as defined in Claim 1, further comprising:

specifying a type or name of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

retrieving business hour information of the POIs from the POI database or from a remote service provider through a wireless communication; and

comparing the ETA at the destination and the business hour information of the POIs and informing estimated open/close states of the POIs at a time of arrival at the destination.

8. A display method for a navigation system as defined in Claim 1, further comprising:

specifying a type of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

retrieving business hour information of the specified type of POIs from the POI database or from a

remote service provider through a wireless communication;

comparing the ETA at the destination and the business hour information of the POIs; and

5 listing the specified type of POIs sorted by distance from a reference location or the destination wherein each POI in the list is accompanied by an estimated remaining business hour at a time of arrival at the destination.

10 9. A display method for a navigation system as defined in Claim 8, wherein the estimated remaining business hours of the POIs in the neighborhood area of the destination are classified and displayed by availability icons using predetermined shapes or colors.

15 10. A display method for a navigation system as defined in Claim 1, further comprising:

specifying a type of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

20 retrieving business hour information of the specified type of POIs from the POI database or from a remote service provider through a wireless communication;

25 comparing the ETA at the destination and the business hour information of the POIs; and

listing the specified type of POIs in the neighborhood area of the destination sorted by degrees of remaining business hour at a time of arrival at the destination.

30 11. A display method for a navigation system as defined in Claim 10, wherein the degrees of remaining business hours of the POIs in the neighborhood area of the destination are classified and displayed by time length icons using predetermined shapes or colors.

12. A display method for a navigation system as defined in Claim 1, further comprising a step of indicating a change of time zone when the current position is at a border or near the boarder of two or more different time zones.

5           13. A display method for a navigation system as defined in Claim 12, wherein said step of indicating the time zone change includes a step of displaying the time zone change on a screen, or both displaying and voice announcing the time zone change.

10           14. A display method for a navigation system as defined in Claim 12, wherein said step of indicating the time zone change is conducted without regard to whether the navigation system is in a route guidance mode for guiding the user to the destination or a mode other than the route guidance mode.

15           15. A display method for a navigation system as defined in Claim 1, wherein said step of calculating the ETA includes the steps of:

                  calculating the ETA based on a local time at the destination if the destination belongs to a time zone  
20                   different from the time zone at the current user position;

                  calculating the ETA based on a local time at the current user position if the destination belongs to the same time zone as the time zone at the current user  
25                   position; and

                  compensating the ETA for a difference of daylight saving time when the daylight saving time is applied to either the destination or the current user position.

30           16. A display apparatus for a navigation system, comprising:

                  means for examining a position of a destination and monitoring a current position of a user during a travel to the destination;

means for retrieving information on time zones and observation of daylight saving time at the current user position and the destination;

5 means for calculating an estimated time of arrival (ETA) at the destination based on a local time and daylight saving time of the destination using the retrieved information; and

means for informing the user of the ETA at the destination and a current time.

10 17. A display apparatus for a navigation system as defined in Claim 16, wherein said current time informed by the navigation system is produced based on a local time and daylight saving time in a time zone at the current user position or on a local time and daylight saving time in a  
15 time zone of a home state of the user.

18. A display apparatus for a navigation system as defined in Claim 16, wherein, when the destination is a POI (point of interest) selected from a POI database of the navigation system, said means for retrieving the information  
20 includes means for retrieving business hour information of the destination POI.

19. A display apparatus for a navigation system as defined in Claim 16, wherein, when the destination is a POI (point of interest), said means for retrieving the  
25 information includes means for retrieving business hour information of the destination POI, and said means for informing the ETA includes means for displaying the business hour of the destination.

20. A display apparatus for a navigation system as  
30 defined in Claim 19, said means for retrieving business hour information of the destination POI includes means for retrieving business hour information of other POIs in a neighborhood of the destination, and said means for informing the business hour of the destination includes means for  
35 displaying the business hours of other POIs.

21. A display apparatus for a navigation system as defined in Claim 16, further comprising:

5 means for specifying a destination POI by selecting a POI (point of interest) from a POI database of the navigation system;

means for retrieving business hour information of the destination POI; and

10 means for comparing the ETA at the destination POI and the business hour information and informing an estimated open/close state of the destination POI at a time of arrival.

22. A display apparatus for a navigation system as defined in Claim 16, further comprising:

15 means for specifying a type or name of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

20 means for retrieving business hour information of the POIs from the POI database or from a remote service provider through a wireless communication; and

means for comparing the ETA at the destination and the business hour information of the POIs and informing estimated open/close states of the POIs at a time of arrival at the destination.

25 23. A display apparatus for a navigation system as defined in Claim 16, further comprising:

means for specifying a type of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

30 means for retrieving business hour information of the specified type of POIs from the POI database or from a remote service provider through a wireless communication;

35 means for comparing the ETA at the destination and the business hour information of the POIs; and

means for listing the specified type of POIs sorted by distance from a reference location or the destination wherein each POI in the list is accompanied by an estimated remaining business hour at a time of arrival at the destination.

24. A display apparatus for a navigation system as defined in Claim 23, wherein the estimated remaining business hours of the POIs in the neighborhood area of the destination are classified and displayed by availability icons using predetermined shapes or colors.

25. A display apparatus for a navigation system as defined in Claim 16, further comprising:

means for specifying a type of POIs (points of interest) in a neighborhood area of the destination from a POI database of the navigation system;

means for retrieving business hour information of the specified type of POIs from the POI database or from a remote service provider through a wireless communication;

means for comparing the ETA at the destination and the business hour information of the POIs; and

means for listing the specified type of POIs in the neighborhood area of the destination sorted by degrees of remaining business hour at a time of arrival at the destination.

26. A display apparatus for a navigation system as defined in Claim 25, wherein the degrees of remaining business hours of the POIs in the neighborhood area of the destination are classified and displayed by time length icons using predetermined shapes or colors.

27. A display apparatus for a navigation system as defined in Claim 16, further comprising means for indicating a change of time zone when the current position is at a border or near the boarder of two or more different time zones.

28. A display apparatus for a navigation system as defined in Claim 27, wherein said means for indicating the time zone change includes means for displaying the time zone change on a screen, or both displaying and voice announcing the time zone change.

29. A display apparatus for a navigation system as defined in Claim 27, wherein said means for indicating the time zone change is conducted without regard to whether the navigation system is in a route guidance mode for guiding the user to the destination or a mode other than the route guidance mode.

30. A display apparatus for a navigation system as defined in Claim 16, wherein said step of calculating the ETA includes the steps of:

means for calculating the ETA based on a local time at the destination if the destination belongs to a time zone different from the time zone at the current user position;

means for calculating the ETA based on a local time at the current user position if the destination belongs to the same time zone as the time zone at the current user position; and

means for compensating the ETA for a difference of daylight saving time when the daylight saving time is applied to either the destination or the current user position.